


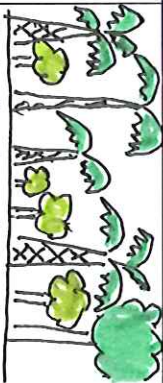

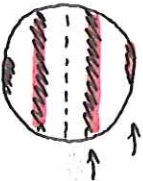

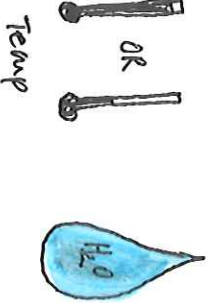


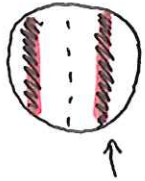

## Biomes

2.4.1 Define the term biome.

A collection of ecosystems sharing climatic conditions. They have distinctive abiotic + biotic characteristics.

↳ These areas don't stop @ national boundaries.

2.4.2 Explain the distribution, structure, and relative productivity of tropical rainforests, deserts, tundra, and any other biome

	Distribution on Earth	Structure	Characteristics	Productivity	Limiting Factors
<b>Tropical Rainforest</b>	Always at the equator; high insolation (lots of sun) 	Made of various stories of plants (light can be limited below the canopy) 	-Constant high temperatures -High rainfall (over 2,500mm/yr) -High biodiversity: species, genetic, & habitat -High rates of decay	-High photosynthesis -High NPP (~40% for terrestrial ecosystems)	-Thin soils, once gone, hard to reestablish forests -Rain washes away nutrients (Limiting Factor) -Made of various stories of plants (light can be limited below the canopy) 
<b>Desert</b>	Found at latitudes of 30° N and S (above & below equator) 	-Little vegetation, soils with lots of nutrients -Organisms are highly adapted 	-Dry air, high insolation (lots of sun) -Hot versions of this biome: high temperatures, low precipitation, uneven water, cold at night -Cold versions: low temperatures, low precipitation -Low decomposition rates	Low photosynthesis Low NPP	-Temperature & Water are limiting -Short day length (low insolation) (Light is limiting) -Precipitation is low, water is stored in ice (Water is limiting) -Low temperatures (Temperatures are limiting) 
<b>Tundra</b>	At high latitudes, adjacent to ice margins 	-Plants are all short 	-Low respiration & decomposition -Soil is frozen, little soil anyway	-Low rates of photosynthesis Little NPP	-Limiting -Precipitation is low, water is stored in ice (Water is limiting) -Low temperatures (Temperatures are limiting)
<b>Temperate Deciduous Forest</b>	Between 40-60° N of the equator 	-Evergreen and deciduous trees -Thick soils, detritus layers, lots of nutrients 	-Seasonal (cold winters, warm summers) -Rainfall between 500-1500mm/yr -Less biodiversity than rainforests -Sunlight can easily hit below the canopy level	-Lower productivity, lower photosynthesis than rainforest -Still have second highest NPP	-Seasonal (light, moisture, etc)